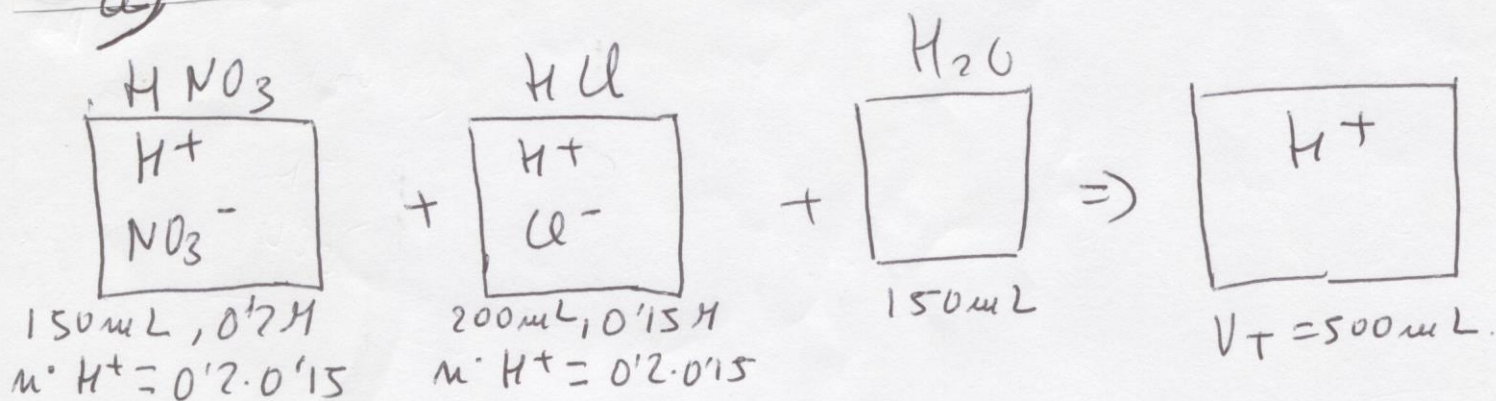


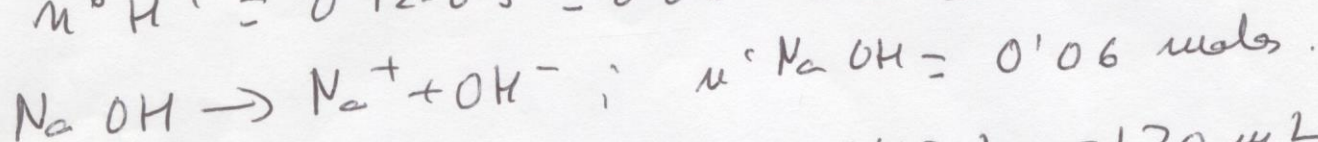
(19)

a)



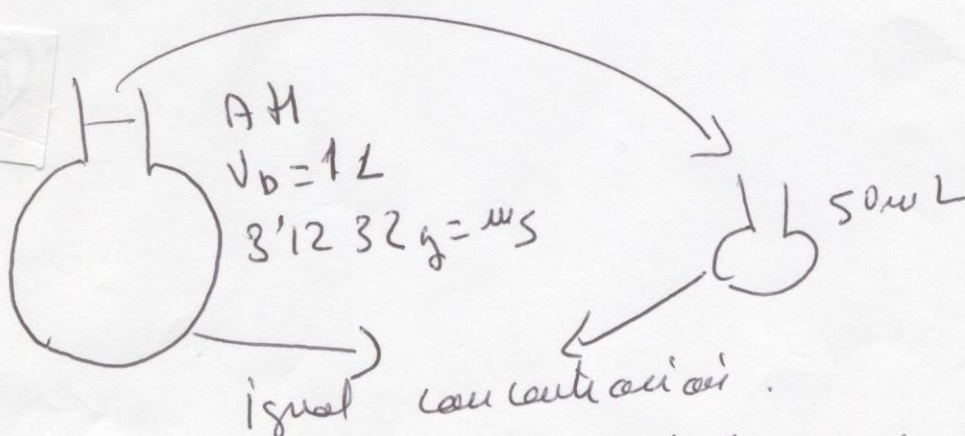
$$[\text{H}^+] = \frac{0.2 \cdot 0.15 + 0.2 \cdot 0.15}{0.5} = \frac{0.06}{0.5} = 0.12 \text{ M}; \text{ pH} = \underline{\underline{0.92}}$$

b) Neutralization  $\Rightarrow n^{\circ} \text{H}^+ = n^{\circ} \text{OH}^-$   
 $n^{\circ} \text{H}^+ = 0.12 \cdot 0.5 = 0.06$  Neutralization  $n^{\circ} \text{OH}^- = 0.06$



$$0.05 = \frac{0.06}{V_D}; \quad V_D = \underline{\underline{0.12 \text{ L}}} = \underline{\underline{120 \text{ mL}}}$$

(18)



P. de equivalência  $\Leftrightarrow$  Neutralização  $\Rightarrow V_A \cdot M_A \cdot \text{val} = V_B \cdot M_B \cdot \text{val}$

$$50 \cdot M_A \cdot 1 = 25.6 \cdot 0.05 \cdot 1; \quad M_A = 0.0256 \text{ M.}$$

$$0.0256 = \frac{\frac{3.1232}{P_m}}{12}; \quad P_m = 122 \frac{\text{g}}{\text{mol.}}$$